

DETAILED ACTION

1. This Office Action is a response to the remarks filed on May 14, 2010. Claims 1-14 have been amended; no claims have been cancelled; claims 60-62 have been added.
2. In view of the amendment(s) and remarks, the rejection of claims 1-14 under 35 U.S.C. 112, second paragraph, the rejection of claims 1-14 under 35 U.S.C. 103(a) as being unpatentable as obvious over Suau et al. (WO 2004/014967 or U. S. Patent 7,462,676), and the rejection of claims 1-14 under 35 U.S.C. 103(a) as being unpatentable as obvious over Chiefari et al. (WO 99/31144 or U. S. Patent 6,642,318) have been withdrawn.
3. Claims 1-14 and 60-62 are active.

EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Jay E. Rowe (Reg. No. 58,948) on July 28, 2010.

5. Claims 15-59 have been cancelled.

Allowable Subject Matter

6. Claims 1-14 and 60-62 are allowed.

7. The following is examiner's statement of reasons for allowance:

The present claims are allowable over the closest references: Suau et al. (WO 2004/014967 or U. S. Patent 7,462,676) and Chiefari et al. (WO 99/31144 or U. S. Patent 6,642,318).

Suau discloses homopolymers and copolymers of acrylic acid obtained by a process for controlled radical polymerization of acrylic acid and its salts in a reactive medium constituted solely of water (abstract).

Suau discloses that the homopolymers and copolymers of acrylic acid with hydrosoluble monomers have an average molecular mass by weight (Mw) of between 1000 g/mole and 60,000 g/mole, and more particularly between 4500 g/mole and 8000 g/mole, with a polymolecularity index of less than or equal to 2 for a conversion rate relative to acrylic acid higher than 90% (col. 5, lines 1-8).

Suau further discloses that the process is characterized in that the hydrosoluble transfer agent is α -substitute β -carboxylate xanthate salt. In an even more particular manner, the hydrosoluble transfer agent is α -substitute β -carboxylate sodium xanthate, and completely preferably α -substitute β -carboxylate sodium xanthate is α -methyl β -carboxylate sodium xanthate (col. 4, lines 4-11).

Thus, Suau's homopolymer or copolymer, contrastingly, is terminated by a -C(O)OM group arising from Suau's employment of a xanthate salt chain transfer agent.

Chiefari discloses homopolymers of acrylic acid and/or copolymers of acrylic acid with hydrosoluble monomer obtained by a free radical polymerization process for

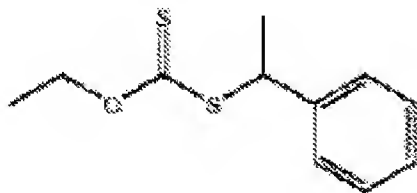
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synthesizing polymers. The process utilizes sulfur based chain transfer agents and is widely compatible over a range of monomers and reaction conditions. The process produces novel polymers having low polydispersity and predictable specific polymer architecture and molecular weight. The polymers are suitable for use as binders in automobile OEM and refinish coating (abstract).

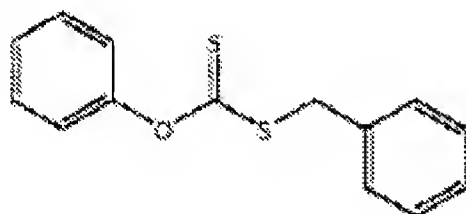
Chiefari further discloses that the chain transfer agent is one of the following:

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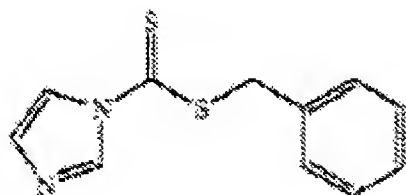
Compound C



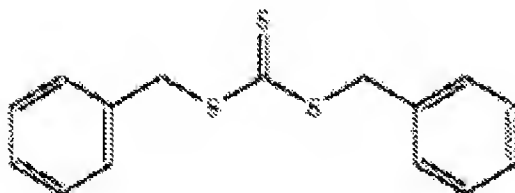
Compound F



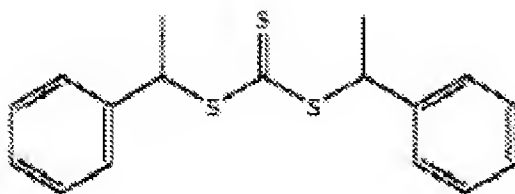
Compound M



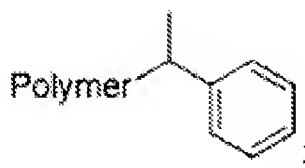
Compound N



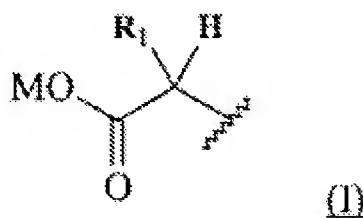
Compound P



When they terminate a polymer in a radical polymerization, the following terminating group is obtained:



Thus, Suau et al. and Chiefari do not disclose or fairly suggest the claimed homopolymer of acrylic acid and/or copolymer of acrylic acid with a hydrosoluble monomer, wherein the homopolymer and/or copolymer characterized in that they have has a polymolecularity index of under 2.2, and the homopolymer and/or copolymer comprises at an end of the homopolymer and/or copolymer chain a pattern in accordance with the following formula (I)



wherein R₁ designates is an alkyl radical having 1 to 10 carbon atoms or an aromatic radical that is optionally possibly substituted by an alkyl chain

having 1 to 4 carbon atoms; and M is designates the a hydrogen atom, an amine salt, ammonium or an alkaline cation, as per claim 1.

8. As of the date of this Notice of Allowability, the Examiner has not located or identified any reference that can be used singularly or in combination with another

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reference including Suau et al. and Chiefari to render the present invention anticipated or obvious to one of ordinary skill in the art.

9. In the light of the above discussion, it is evident as to why the present claims are patentable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delay, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reason for Allowance".

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL M. BERNSHTEYN whose telephone number is (571)272-2411. The examiner can normally be reached on M-Th 8-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael M. Bernshteyn/
Examiner, Art Unit 1796

/M. M. B./
Examiner, Art Unit 1796